



FEMA

June 9, 2009

Ms. Lisa S. Jones, CFM
State Coordinator
Flood Mitigation Programs
South Carolina Department of Natural Resources
Rembert C. Dennis Building
1000 Assembly Street
PO Box 167
Columbia, SC 29202

Dear Ms. Jones:

This letter is in response to your letter dated April 21, 2009. Specifically you have raised questions regarding the impact that proposed changes under consideration by the South Carolina General Assembly may have on South Carolina communities that participate in the National Flood Insurance Program (NFIP) Community Rating System (CRS).

Current proposals being considered in South Carolina appear to have the potential of weakening the ability of South Carolina communities to implement mitigation practices commensurate with the risk management and mitigation objectives of the International Residential Code (IRC) and the CRS. Should the South Carolina proposals be deemed to provide less protection than current consensus model codes and standards, FEMA would have Building Code Effectiveness Grading Schedule (BCEGS) ratings conducted and adjust CRS Classes accordingly.

South Carolina CRS Class 7 or better communities may be retrograded in CRS depending upon the impact of any state proposal that could effect a CRS community's BCEGS classification. The CRS requires CRS Class 7 or better communities to have a BCEGS classification of at least a 6/6 or better. The CRS recognizes the BCEGS program because the BCEGS evaluation system assesses both building code adoption and enforcement practices. Any CRS Class retrogrades would not become effective earlier than May 1, 2010. This estimated date is due to the uncertainties of the proposals until they become final and the subsequent time necessary to conduct BCEGS reviews to determine the impact upon each community.

The BCEGS evaluation process considers the currency of the code a community has adopted. A community's BCEGS classification would be less favorable if South Carolina were to adopt a proposal that provides less protection than the 2009 edition of the IRC. This could be influenced by whether or not the proposed seismic and wind maps being considered by South Carolina are adopted. In the past, South Carolina communities had the ability to adopt and enforce the latest edition of the IRC or particular provisions. The ability of communities to adopt a code that is stronger than the statewide South Carolina code allows communities to maintain or improve levels of mitigation protection. Until another BCEGS review is conducted it is not possible to definitively predict the CRS Class retrograde impact upon South Carolina communities.

South Carolina is considering early adoption of newly developed wind and seismic maps which raises numerous concerns and could impact other important elements in the State's building and residential code. If South Carolina were to prematurely adopt these maps, it would circumvent a consensus adoption process that has been established for building code review and development. Furthermore, early adoption without the benefit of assuring that new code provisions of the IRC and International Building Code (IBC) properly align with the new South Carolina wind and seismic maps would introduce incompatibilities and inconsistencies and the possible weakening of the codes beyond what South Carolina may be intentionally considering. Early map adoption would be indefensible should challenges be brought forth by concerned parties in the building and construction industry. The following two recent studies and reports recommend incorporating revised wind and seismic maps into the South Carolina building code: The *IRC Wind Provisions Evaluation for the State of South Carolina* report published on May 6, 2009, by Clemson University and the *Assessment of the Wind and Seismic Provisions in the 2006 International Residential Code – Final Report of Findings and Recommendations* published on April 25, 2009. We are also in receipt of an 81 page report, *IRC Wind Provisions Evaluation for the State of South Carolina* released May 31, 2009 which we have not yet evaluated.

The National Earthquake Hazards Reduction Program (NEHRP) produces seismic design maps that eventually appear as seismic maps in the IRC after being scrutinized through the American Society of Civil Engineers (ASCE) 7 consensus balloting process. As referenced above, this consensus process assures compatibility of the sequencing of data and products that eventually become components of the building code. It is inappropriate for a State to prepare its own version of an IRC map before the base seismic design maps have been finalized by consensus ballot and adopted by the IRC. New maps contain some controversial changes that may be revised and modified through the consensus processes. Short-circuiting this process could result in a seismic map with incorrect design values when compared to the final IRC map. By revising the IRC map for South Carolina, a significant discrepancy would then be established between the IRC and the IBC resulting in the ICC codes no longer being synchronized.

By approaching code change in the manner proposed, South Carolina will weaken the built environment and send the wrong message to the public through this precedent. If the State's decision is to move forward with action to implement the new risk-based maps, FEMA strongly recommends that it be done through a proper consensus process where the technical merits can be given full and careful attention.

Thank you for inviting FEMA to provide comments on how the BCEGS classifications are linked with the NFIP CRS. If you have additional questions or concerns I encourage you to contact Bill Lesser, CRS Coordinator for the Mitigation Directorate at (202) 646 – 2807.

Sincerely,



Deborah S. Ingram
Acting Deputy Assistant Administrator
for Mitigation

cc: Brad Loar, Mitigation Division, FEMA Region IV
William Trakimas, ISO